

CLAIMS

What is claimed is:

1. A method of maintaining network configuration data in a database, said method comprising:

5 storing current configuration data representing a current configuration of said network in a database as a collection of managed objects, wherein each managed object has attributes corresponding to variables that can be configured to manage and control operation of the network; and
10 storing historical configuration data representing past configurations of said network in said database as a collection of changed objects, wherein each changed object represents a past configuration of one of said managed objects that has been changed.

2. The method of claim 1, further comprising restoring said database to a prior version by restoring historical configuration data from at least one changed object.

15 3. The method of claim 1 further comprising altering said database by selectively restoring historical configuration data from one or more changed objects.

4. The method of claim 1 further comprising storing, contemporaneously with storing said historical configuration data, change parameters associated with the change.

20 5. The method of claim 5 wherein said change parameters include a timestamp.

6. The method of claim 6, wherein said historical configuration data to be substituted into said database is selected based on said timestamp.

7. The method of claim 5 wherein said change parameters include an operator identification.

8. The method of claim 8, wherein said historical configuration data to be substituted into said database is selected based on said operator identification.
 9. The method of claim 5 wherein said change parameters include a group code.
 10. The method of claim 10, wherein said historical configuration data to be substituted into said database is selected based on said group code.
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11. A database stored in a memory for maintaining configuration data associated with one or more managed objects in a communication network, said database comprising:

current configuration data representing current values for configurable attributes

5 of the managed objects; and

historical configuration data comprising one or more changed objects, wherein

each changed objects represents a past configuration of one of said

managed objects that has been changed.

10 12. The database of claim 11, wherein said historical configuration data further includes change parameters associated with the change.

13. The database of claim 11, wherein said database is restored to a prior version by restoring historical configuration data associated with at least one changed object.

14. The database of claim 11, wherein said database is altered by selectively restoring historical configuration data associated with one or more changed objects.

15 15. The database of claim 12 further comprising prospective configuration data stored as one or more changed objects representing proposed changes to one or more managed objects.

16. The database of claim 15, wherein said database is altered by selectively substituting prospective configuration data associated with one or more said changed
20 objects for the associated current configuration data.

17. The database of claim 15, wherein said database includes both said historical configuration data and said prospective configuration data.

18. The database of claim 17, wherein said database is altered by selectively substituting prospective configuration data associated with one or more said changed

objects for the associated current configuration data, and selectively substituting
historical configuration data associated with one or more other of said changed objects
for the associated current configuration data.

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19. A database stored in a memory for maintaining configuration data associated with one or more managed objects in a communication network, said database comprising:

one or more changed objects storing historical configuration data;

5 wherein each changed object represents a past configuration of a managed objects that has been changed; and

wherein each changed object includes at least one change parameter relating to a change in the corresponding managed object.

10 20. The database of claim 20, wherein said change parameter is a timestamp representing the time of a corresponding change to the managed object.

21. The database of claim 20, wherein said change parameter is a user identification of a user that made a corresponding change to the managed object.

22. The database of claim 20, wherein said change parameter is a group code.

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23. A communication network comprising:
a network entity comprising one or more managed objects, each managed object
having one or more configurable attributes that can be configured by a
user;

5 a database for storing the current configuration of the managed objects; and
one or more changed objects stored in said database, wherein each changed
objects represents a past configuration of one of said managed objects
that has been changed.

24. The communication network of claim 23, wherein said historical configuration
10 data further includes change parameters associated with a change in a managed object.

25. The communication network of claim 23, wherein said database is restored to a
prior version by restoring historical configuration data associated with at least one
changed object.

26. The communication network of claim 23, wherein said database is altered by
15 selectively restoring historical configuration data associated with one or more changed
objects.

27. The communication network of claim 23 further comprising prospective
configuration data stored in said database as a one or more changed objects, said
prospective configuration data reflecting proposed changes to the associated managed
20 object.

28. The communication network of claim 26, wherein said database is altered by
selectively substituting prospective configuration data associated with one or more said
changed objects for the associated current configuration data.

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30. The communication network of claim 29, wherein said database is altered by selectively substituting prospective configuration data associated with one or more said
5 changed objects for the associated current configuration data, and selectively substituting historical configuration data associated with one or more other of said changed objects for the associated current configuration data.